

Key to the Subfamilies of Sapygidae

Eyes entire; antennae not inserted beneath frontal carinae; legs of ♀ spiny, fossorial Fedtschenkiinae
 Eyes emarginate; antennae inserted beneath frontal carinae; legs not spiny. Parasites in the nests of bees. . . . Sapyginae

The synonymy of our only North American species will remain as given by R. M. Bohart,³ with the additions noted.

Fedtschenkia Saussure

anthracina (Ashmead). Wash., Cal., Col., N. Mex.

Telephoromyia anthracina Ashmead, 1898.

Plesia (Myzine) nigropilosella Cameron, 1908. Trans. Amer. Ent. Soc., 34: 237, ♀.

Cosila plutonis Banks, 1913.

In addition to material already recorded, there is a ♀ in the U. S. N. Museum from Wawawai, Washington, collected 7/9 by C. V. Piper and one in the Baker Collection, U. S. National Museum, from Arboles, Colorado on *Salix*.

North American Muscoidea (Diptera: Tachinidae)¹

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The four new species described below were encountered in materials received for identification from several different sources as specified under the descriptions. The types, except as indicated, are retained by permission in my collection.

Xanthomelanodes trivittata, new species

A small species with a wide front which traces to *X. californica* in Sabrosky's key (Jour. Wash. Acad. Sci., 40: 363) but is readily distinguished from the latter and all other known

³ Hymenoptera of American north of Mexico. Synoptic catalog 1951, p. 777.

¹ Contribution No. 2229, from the Department of Entomology, Texas Agricultural Experiment Station.

species by the unicolorous black femora and distinctly vittate mesonotum.

Male. Black in general aspect with only the sides and venter of abdominal segments one and two and the genitalia distinctly reddish yellow; one weak black bristlet beneath each vibrissa; parafrontal grayish pollinose, narrowed above but attaining vertex; latter 0.28 of head width; wholly black third antennal segment hardly longer than second which is reddish in ground color, palpus red tipped with black. Thorax lightly gray pollinose on dark background, notum with three broad velvety black vittae, which extend halfway or more to base of scutellum, the intermediate pale or pollen vittae much narrower but distinct along entire dorsocentral row; prescutellar area densely pollinose; postnotal slope inconspicuously setose; three sternopleural bristles. Legs black, coxae and trochanters obscurely reddish; claws and pulvilli about equal length of apical tarsal segment. Wing smoky on coastal half becoming paler towards hind margin; first posterior cell closed to barely petiolate at exact wing tip; cubitus very broadly or gently bowed; epaulet black; calypter semitransparent white to slightly tawny; genital segments yellow; forceps broad and flattened behind basally, suddenly narrowed near middle thence moderately produced as a slender recurved blunt-tipped beak. Female unknown.

Length, 6 mm.

Holotype male, "15 km. N. of Chapalilla, Nay., Mex., 19 July 1951, Baccharis, P. D. Hurd."

Phasiomyia meliceris, new species

Readily distinguished from *P. splendida* (genotype), by the larger build and wholly reddish yellow abdomen.

Male. Vertex barely wider than ocellar triangle, front at narrowest subequal width of same but diverging rapidly forward to level of antennal base; parafrontal blackish, gray pollinose, clothed with numerous erect black hairs; frontalia black, wider than parafrontal on upper half; frontal bristles barely differentiated from adjacent hairs, stopping above antennal base; ocellars and verticals weak or hairlike; epistoma very promi-

ment or conelike in profile, as long as clypeus; vibrissal angles beset with two or three short bristly hairs and several setae immediately above; antennal bases well separated, first segment flush, ovate third segment but little longer than second, wholly black; arista black, bare, moderately thickened on basal two-fifths, middle segment short but distinct; frontal lunule polished black; broad parafacial transversely dished, plumbeous with paler background apparent on inner margin below vibrissal level; cheek sparsely pale-haired, black with a broad pale yellow vitta extending from middle of oral cavity nearly to lower edge of eye; latter bare; proboscis moderately slender, shorter than head height; palpus yellow, slender with tip slightly swollen; occiput flat, thinly gray pollinose, with a vestiture of rather short black hairs intermixed with paler ones on lower part.

Thorax velvety black, mesoscutum with a defined prescutellar subquadrate patch of golden pollen, which tapers anteriorly and almost reaches transverse suture, besides a smaller lateral vitta of paler or grayish pollen; pleura thinly gray pollinose, clothed with whitish hairs; one (posterior) sternopleural bristle; scutellum black, lightly dusted with whitish pollen. Legs subshining black, femora clothed with pale hairs and bristles ventrally and black ones dorsally; claws and pulvilli about equal to combined length of last two tarsal segments. Wing with anal area considerably enlarged, pale yellow near base tinged with brown along veins in costal half and paler on hind margin; apical cell closed with long petiole ending in extreme wing tip; calypters wide, transparent tawny.

Abdomen broadly ovate and flattened above, surface of three basal segments shiny, fourth with opaque yellowish pollen except on narrow basal margin; without any differentiated bristles, the vestiture of black hairs short and appressed; hypopygium ventral, brownish black; sternites exposed. Female unknown.

Length, 11 mm.

Holotype: University of British Columbia Campus, Vancouver, BRITISH COLUMBIA, October 16, 1950 (R. O. Dunsmore) in the British Columbia University Collection. *Paratype*: 1 male, "North Van. 29-IX-1948 G. A. West."

Hemyda zonula, new species

Abdomen more constricted basally than in *H. aurata* (genotype); sides of postnotum beneath calypters bare; tarsi reddish and concolorous with tibiae.

Male. Eye bare, reaching from lower edge of head to well above level of vertex, rather deeply emarginate near middle of hind margin; frontalia except on lateral margins polished or shining black; front at vertex 0.18 of head width; parafrontal yellow pollinose, strongly narrowed before vertex; frontal bristles weak, descending slightly below antennal base; inner verticals and ocellars weak or hairlike; facialia bare, narrow, shining black; vibrissae reduced to small hairs, far below median level of oral margin; parafacial bare yellow pollinose; antenna as long as face, blackish, third segment about three times length of second; arista yellowish on thickened basal half, blackish and micro pubescent beyond middle, second segment moderately elongate; cheek sparsely pale-haired, linear in profile; proboscis short, labella large and fleshy; palpus brown thickened tip paler or yellowish; occiput clothed with pale hairs.

Thorax subshining black, scutellum reddish apically, with pale yellowish pollen appearing denser on transverse suture, sternopleuron, humerus and on prescutum as two vague vittae which taper rearward and fade out before attaining suture; anterior acrostichal bristles not developed, prescutellar pair distinct; post dorsocentrals 3; notopleurals 2; presutural 1 (outer); sternopleural 1 (hindmost); scutellum with 2 lateral and 1 decussate apical, no discs; prosternum and propleuron bare.

Legs reddish yellow becoming blackish basally, moderately elongate; claws pale yellow with brown tips, subequal to length of last two tarsal segments, pulvilli about as long as claws.

Wing rather narrow and long, extending well beyond tip of abdomen, blackish on costal third, subhyaline or grayish behind; first posterior cell narrowly open a trifle before wing tip; cubitulus obtusely rounded without fold or stump; third vein with two or three minute hairs near base; costal spine not developed; epaulet blackish; calypters rather small, transparent but with a uniform tawny tinge.

Abdomen black in ground color, constricted part of first principal segment transparent white except along median line above, narrow basal margin of second segment also pale in background, two apical segments thinly dusted with gray pollen; weak median marginal bristles on all except anal segment; genitalia yellowish, forceps soft in texture, triangular as viewed from behind, accessory process considerably longer than forceps, broadly rounded at tip; apical sternites exposed.

Female. Similar to male except for sexual differences; genitalia as in *aurata*, composed of a pair of sclerotized anal forceps with tips of latter apposed to the divergent arms of a characteristic Y-shaped process situated near middle of ventral surface of apical sternite, piercer small, slender or needle-like.

Length, male, 10 mm; female, 7.5 mm.

Holotype male and *allotype* female (on same pin), Orizaba, MEXICO, 2500 ft., November 13, 1954 (R. R. Dreisbach), in the U. S. National Museum.

Cylindromyia sternalis, new species

This species is almost like *C. limbata* Aldrich (Proc. U.S.N.M., 68: 25), but is larger, has predominantly black legs and wholly pale-haired cheeks; the shape and vestiture of the fifth sternite differs markedly from all known allied species.

Male. Head pale yellowish pollinose occiput and posterior orbit gray to cinereous; antenna reddish nearly to or below arista, third segment narrower than parafacial; frontalia pale brownish, hardly narrowed towards vertex; latter 0.27 of head width; ocellars weak and divaricate; parafrontal devoid of any vestiture outside of frontal row; cheek about one-seventh eye height.

Thorax gray pollinose on dark background which shows a slight but distinct metallic tinge on notum; latter vittate in front of suture, less distinctly so behind; scutellum concolorous with notum bearing two lateral bristles and one decussate apical pair; sternopleurals three. Wing infusate around first posterior cell, including hind cross vein and about apical third of second, costa yellow from base to apex of first vein; epaulet black, subepaulet

red. Claws and pulvilli nearly equal combined length of last two tarsal segments; hind trochanter bearing a cluster of stubby recurved bristles on inner apical margin, not very conspicuous.

Abdomen largely black sides more or less reddish to brown; incisures of intermediate segments silvery pollinose; one pair of median marginal bristles on segments one and two and a marginal row of six to eight stoutish bristles on segment three and four; genitalia reddish yellow, forceps and accessory process sclerotized; fifth sternite with an extremely wide excision reducing lobes to a narrow rim which is beset with short bristly hairs and stubby spines except on anterior median third which is devoid of any vestiture. Female unknown.

Length, 13–14 mm.

Holotype male, Ahuacatlan, Nay., MEXICO, July 18–22, 1951 (P. D. Hurd). *Paratype*, 1 male, "El Salto, MEX., Aug. 24, 1942."

Smithsonian Institution Receives Bromley Collection

The **Stanley W. Bromley Collection**, consisting mostly of Diptera, contains well over 35,000 specimens nearly 28,000 of which are "robber-flies" (Asilidae). Of this number 868 individuals are type specimens. Among the types are many of Wilcox, Martin, and Cole, as well as those of Bromley. This collection is world-wide in scope containing excellent representations from South America, Africa, Europe, Indo-Malaya, Australia, New Guinea, New Caledonia, and China. There are about 20,000 specimens from North America. This acquisition gives the Smithsonian Institution one of the foremost collections in this group.

The late Dr. Bromley, formerly with the Bartlett Tree Research Laboratories, Stamford, Connecticut, spent a lifetime assembling this material and devoted much time to collecting the prey as well as the predator flies. His publications on Asilidae, of which a complete set came with the collection, were many.